Bar Plot of Alphabet Inc. Trading Volume

Aim

Create a bar plot of the trading volume of Alphabet Inc. stock between two specific dates.

Algorithm

1. Import required libraries (pandas and matplotlib)
2. Load the stock data into a pandas DataFrame
3. Convert the 'Date' column to datetime and set it as the index
4. Filter the data between two specific dates
5. Create a bar plot using matplotlib:
     - Set the figure size
     - Plot the data using plt.bar()
     - Set the title, x-label, and y-label
     - Rotate x-axis labels for better readability
6. Display the plot

Code

```python
import pandas as pd
import matplotlib.pyplot as plt

data = {
    'Date': ['2022-01-01', '2022-01-02', '2022-01-03', '2022-01-04', '2022-01-05'],
    'Volume': [1000000, 1200000, 800000, 1500000, 1100000]
}

df = pd.DataFrame(data)
df['Date'] = pd.to_datetime(df['Date'])
df.set_index('Date', inplace=True)

start_date = '2022-01-01'
end_date = '2022-01-05'
filtered_data = df.loc[start_date:end_date]

plt.figure(figsize=(12, 6))
plt.bar(filtered_data.index, filtered_data['Volume'])
plt.title('Alphabet Inc. Trading Volume')
plt.xlabel('Date')
plt.ylabel('Volume')
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()
```
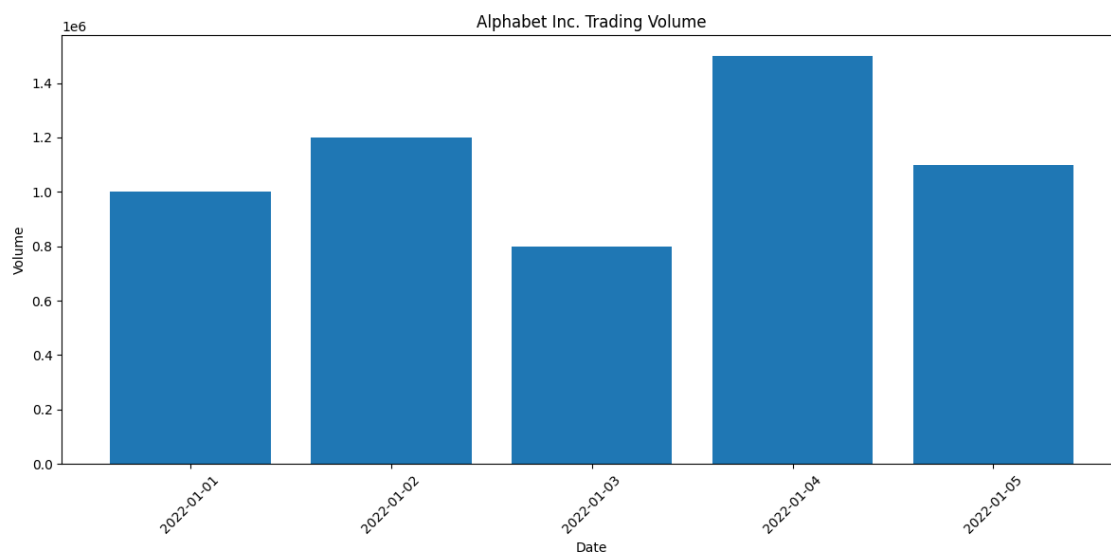
Output

Alphabet Inc. Trading Volume

Result

The bar plot successfully visualizes the trading volume of Alphabet Inc. stock between January 1, 2022, and January 5, 2022. Each bar represents the trading volume for a specific date, allowing for easy comparison of daily trading volumes within the specified date range.